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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,697	03/17/2000	Robert Beach	A32894-072797.0127	5223
29906	7590	11/01/2005	EXAMINER	
INGRASSIA FISHER & LORENZ, P.C. 7150 E. CAMELBACK, STE. 325 SCOTTSDALE, AZ 85251			HOANG, THAI D	
			ART UNIT	PAPER NUMBER
			2668	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/528,697

Applicant(s)

BEACH, ROBERT

Examiner

Thai D. Hoang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 08/10/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 28-30, 32-33, 35, 59-62, 64-67, 69, 70-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 59 and 69 is/are allowed.
- 6) ☒ Claim(s) 28-30, 32-33, 35, 60-62, 64-67, 70-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

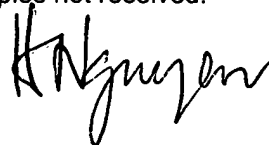
### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



HANH NGUYEN  
PRIMARY EXAMINER

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-30, 33, 35, 60-62, 65-67, 78-86, 88-90 are rejected under 35 U.S.C.

112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification and figures do not describe a structure of a "data packet formatted according to first level of MAC functions" as recited in claims 28, 29, 33, 78, 84 and 88. All claims depend on these rejected claims are rejected, therefore.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 70-73 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "higher level" and "lower level" in claims 70-72 are relative terms which render the claim indefinite. The term "higher level" and "lower level" is not defined by the claim, the specification does not provide a standard for ascertaining the

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requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28-30, 32-33, 35, 60-62, 64-67, 70-79, 81-84, 86-90 are rejected under 35 U.S.C. 102(b) as being unpatentable by Mahany, US Patent No. 5546397.

Regarding claims 28-29, 70, 74, 78-79, 84 and 87-88, as best understood, Mahany discloses a method and system called "High reliability access point for wireless local area network." Mahany disclose the system comprises:

A wireless adapter 15 couple to a CPU processor 13, wherein the wireless adapter 15 comprises a MAC processor 19 that controls low level (layer II ) of MAC functions, a PCMCIA interface, and a radio module 17. The CPU processor 13 controls high level (layer I) of MAC functions. Figs. 1-5, abstract, col. 3, lines 17-32 (A method for transmitting signals having a wireless signal format using an RF port coupled to a cell controller, said the RF port being configured to perform second level medium access control (MAC) functions, the RF port comprising a cell controller interface, a data processor and an RF module, and wherein the cell controller is configured to perform first level MAC functions)

The wireless adaptor 15 receives Ethernet data packets that have been processed according to the high level of MAC functions from the CPU processor 13. Figs. 1-5, col. 3, lines 17-32, 45-47 (receiving data packets formatted according to first level of MAC functions, at the RF port over the cell controller via said cell controller interface).

The radio unit 17 generates RF signal of the Ethernet packets (generating wireless data signals at the processor based on the data packets, wherein the wireless data signals are of said wireless signal format)

Regarding claims 60-61, 64-65, 73, 77 and 83, since the standard IEEE 802.11 is a US standard, which is applied in wireless LANs; therefore, the MAC functions at the access point 10 in the wireless LAN system disclosed by Mahany are inherently defined according to the IEEE 802.11 standard (wherein the wireless signal format and the MAC functions are defined according to the IEEE 802.11 standard).

Regarding claims 30, 35, 62, 67, 86 and 90, the MAC processor 19 in system disclosed by Mahany inherently performs the cyclic redundancy check (CRC) of the data packets because CRC is one of MAC's functions (a cyclic redundancy computation on said data message and adding the result thereof to said data message.)

Regarding claim 66, Mahany discloses the processor encapsulates addresses of data packets, col. 2, lines 21-26 (operating said data processor to encapsulate said address data in said Ethernet packet.)

Regarding claims 71, 76, 81, 89 Mahany discloses the MAC processor 19 performs low level of the MAC functions (col. 3, lines 17-32 ), therefore, it inherently

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performs packet acknowledgement functions because the packet acknowledgement functions belong to the low level of MAC functions (wherein the lower level MAC functions comprise packet acknowledgement functions.)

Regarding claims 72, 75, 82 Mahany discloses the CPU processor 13 performs high level of the MAC functions (col. 3, lines 17-32 ), therefore, it inherently performs association processing and roaming functions because the association processing and roaming functions belong to the high level of MAC functions (higher level MAC functions comprise association and roaming functions.)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 80 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany as shown above in view of Belanger et al., US Patent No. 5,875,186, hereinafter referred to as Mahany and Belanger respectively.

Regarding claims 80 and 85, the wireless adaptor unit 15 in the system disclosed by Mahany comprises the step of transmitting data packet in form of RF signal to a mobile unit. Mahany does not explicitly disclose the access point 10 operate to receive ACK signal from the mobile user, and to cause access point to retransmit data to the mobile units if the ACK signal is not received. However, Belanger discloses a dynamic wireless local area network. Belanger discloses that if an ACK frame not being received

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by the source unit indicates that either the DATA frame was damaged or that the ACK frame itself was damaged. In either case, the source unit must retransmit the entire MAC protocol data unit (MPDU); col. 16, lines 23-27; col. 18, lines 11-45; col. 14, lines 48-50. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply ACK signal disclosed by Belanger into Mahany's system in order to improve quality of service in the network.

***Allowable Subject Matter***

Claims 59 and 69 are allowed for reasons given in the previous action.

***Response to Arguments***

Applicant's arguments with respect to claims 28-29, 70, 74, 78, 84 and 87-88 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D. Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Chieh can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang

TH.



HANH NGUYEN  
PRIMARY EXAMINER